Several features of this proposal simply would not work. First, given delays which may occur in transmittal,[15/] and the necessity of the notice reaching the engineering coordinator of the system, the 14-day notification period would hardly be sufficient. If the MDS operator were to allow 45 days for delivery prior to commencing operations, and request the name and telephone number of the person to contact five working days before radiation, then there may be reasonable assurance that the ITFS operator would be aware of the commencement of MDS operations.

Furthermore, the 14-day notification period would be meaningless especially if the MDS station were scheduled to commence operation during the summer months or holiday seasons. Public and private school systems during summer recess may not have staff available to process such a notice even if it were "received." Similarly, many universities, and their ITFS systems, suspend operations during the end-of-the-year holiday seasons.

The 30-day "complaint" period is even more ridiculous for scheduling and technical reasons. Consider an ITFS system with more than 30 receive sites. Assuming that a professionally qualified person would be required to assess actual interference from the new MDS station at each receive site, even under the most optimistic conditions, it would be a nearly impossible task to complete within 30 days. Assessing interference at each site could take months at a larger system. If more than one co-channel

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15/ For example, the Mass Media Bureau's recent request to ITFS licensees for information regarding antenna patterns was dated April 20, 1992, but did not reach many licensees until weeks later, if at all.

or adjacent-channel MDS station were to commence operations at the same time, assessing interference could not be completed within the 30 days suggested by the Commission (or 60, 90 or 120).

Not only is the Commission's proposal logistically unworkable, it is also technically unsound. Each ITFS receive site is engineered for proper reception with regard to antenna size, elevation and surrounding terrain, which results in a consistent "desired" signal at the receive location. The paths for "undesired" signals, however, are not engineered at all; they simply exist as circumstances dictate. These "undesired" signals may be marginal with respect to terrain and propagation; diffraction over obstructions, vegetation and foliage on trees and climatic conditions may vary throughout the day and over the year as seasons change and substantially affect propagation. As a result, a site which may be interference free in summer may be subject to devastating interference during the fall or winter.

Seasonal variation in foliage is a major factor in many states affecting possible interference. For six or seven months of the year, there may be no interference at a receive site. However, as leaves drop in the fall, a substantial number of interference cases are likely to arise.

Logistical problems also arise with the 30-day complaint period. Construction in many northern states, e.g., Indiana, Massachusetts and New York, follows the seasons, so that an MDS facility may be completed in the spring, and turned on during the summer. Interference may not be encountered until five or six

months later --- long after the Commission's proposed 30-day complaint period.

Seasonal school terms may also affect the ability of ITFS operators to detect interference. Many high schools are included in the IHETS and TVC networks, and most of these sites are not in operation during the summer months. Even if there were interference at these sites, consistent operation may not occur for months after radiation at an MDS station commenced.

In addition to these technical and logistical problems, ITFS stations frequently have restricted resources to complete review of problems such as the potential for interference from MDS applicants. As recently as two years ago, the Commission recognized the importance of giving ITFS licensees "ample time" to review the interference issues, and expressed concern that ITFS licensees have sufficient time to evaluate interference issues to protect their interests. Wireless Cable Service, 5 FCC Rcd at 6413, ¶¶ 21-22 (guaranteeing at least 90 days to review MDS interference analysis).

Other flaws which further vitiate the usefulness of the proposal include:

-- The Commission apparently would offer protection from MDS interference to previously permitted or applied for, but as yet unconstructed, co-channel or adjacent-channel ITFS stations. See proposed 47 C.F.R. § 21.902(b). By switching from protection based upon an engineering analysis to one based upon actual practice, such ITFS operations could not receive protection. This

would place the entire burden of operating these systems without harmful interference on the ITFS station.

-- The Commission has provided no procedure for the interference "complaint" by the ITFS station.[16/] Cf. 47 C.F.R. § 21.902(i)(6) (petition to deny procedure on interference grounds which is proposed to be eliminated). Moreover, the vague language of the proposal offers no guarantee that the complaining station would receive the protection its seeks.[17/] See proposed 47 C.F.R. § 21.902(c)(3)(iii) (if interference occurs, Commission "may" require the MDS operation to cease).

In short, the Commission's proposed "complaint" procedure for interference from new MDS facilities into existing ITFS stations

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16/ Apparently, the only petition to deny which would be permitted against an MDS application would be one filed within 30 days of Public Notice of its acceptance for filing. See proposed 47 C.F.R. § 21.30(a)(4). Because interference analyses would be eliminated, this change, in combination with the 30-day complaint procedure, would preclude formal challenges to MDS applications on electrical interference grounds, a policy of questionable validity.

17/ The Commission's proposal to revoke the right of an ITFS licensee to complain about MDS interference if it did not "fully cooperate" with elimination of such interference demonstrates the Commission's failure to understand the history of ITFS/MDS relations.

ITFS licensees have spent years attempting to accommodate MDS interests with varying degrees of success. In the experience of the Joint Commenters, it is the MDS operator which blocks an agreement. For example, TVC has had an application to relocate its transmitter pending before the Commission for over five years. An agreement with the mutually exclusive ITFS applicant for use of the same site, which would have allowed both facilities to operate, was blocked by the latter's MDS lessee. The Commission has thus far not acted on the applications.

is technically and logistically unworkable. Because it would be impossible for existing ITFS stations to file the complaints necessary to protect their operations, adoption of such a procedure would signal the end of much current ITFS service.

B. Existing ITFS Facilities Must Receive Continuing Interference Protection from MDS Operations.

The Commission has long adhered to a policy of requiring newcomer MDS stations to protect co-channel and adjacent-channel ITFS stations from harmful interference. See, e.g., Amendment of Part 74 of the Commission's Rules and Regulations in Regard to the Instructional Television Fixed Service, 59 RR 2d 1355, 1387-88 (1986), vacated on other grounds, Telecommunications Research & Action Center v. FCC, 836 F.2d 1349 (D.C. Cir. 1988). This policy has the salutary purpose of ensuring the effective and efficient delivery of critical instructional programming to schools, colleges and workplaces.

Now the Commission has proposed a 30-day window for ITFS interference complaints, after which the operation of a newcomer MDS station would become "unconditional" with respect to existing co-channel and adjacent-channel ITFS stations. This outrageous and unjustifiable proposal threatens ITFS as a viable service and withdraws commitments which the Commission has made in the past to support ITFS.

1. The Proposed Rule Would Seriously Impair ITFS Service.

As pointed out above, the Commission's proposed "actual practice" standard is absurdly unworkable in the 30-day time

frame. Under current Section 21.902, MDS applicants are required to prepare an engineering analysis and serve it on proximate ITFS licensees. After receiving such a study, the ITFS operator at least has information necessary to review the circumstances of its various receive sites and to evaluate the potential for harmful interference from the MDS station. Eliminating this procedure would make evaluation of interference enormously difficult.

Moreover, the withdrawal of interference protection after the 30-day window could cripple ITFS operations. Under the proposed policy, interference protection for ITFS receive sites would be nonexistent after one month of MDS radiation, placing the effectiveness of ITFS transmissions at the mercy of MDS operators. An ITFS station would apparently have no recourse at the Commission for previously protected receive sites if falling leaves, atmospheric, terrain, or other circumstances changed, such that harmful interference from an MDS station blocked transmission of instructional programming. The affected receive site or sites would become unuseable, and students at that site or sites would no longer have the benefit of ITFS. All this will, of course, have an adverse impact on the provision of instructional programming by the affected ITFS stations.

2. The Proposed Rule Would Withdraw Protection Previously Promised by the Commission.

In numerous contexts, the Commission has previously made commitments to ITFS operators to protect ITFS operations from harmful interference from newcomer MDS stations. For example, in reallocating the E-group and F-group channels to MMDS, the

Commission grandfathered existing ITFS licensees, permittees and applicants, and explicitly did so permanently.

> Existing ITFS licensees (as well as existing permittees and applicants that eventually become licensees) of the reallocated [E and F] channels would be grandfathered in perpetuity.

Instructional TV Fixed Service, 94 FCC 2d at 1247. At the time of this amendment, the Commission asserted that its 1983 reallocation plan struck a "reasonable balance" between ITFS and MMDS, "minimize[d] the disruption to the plans of existing ITFS licensees, permittees, or applicants," could be easily administered, and provided adequate potential for nationwide MDS operations. Id. at 1241.

The Commission's withdrawal of interference protection for ITFS stations essentially vitiates the usefulness of grandfathered E- and F-Group channels for ITFS. It should also be noted that ITFS operators generally have restricted budgets, and so, improvements to facilities to avoid interference would be difficult, if not impossible.[18/] This represents a major, substantive policy change, directly contrary to the public interest findings in the 1983 reallocation plan, and directly contrary to the Commission's decision to grandfather these operations "in perpetuity," for which absolutely no justification has been provided.

18/ Many schools and states have, of course, relied on the Commission's 1983 determination and have continued to operate and invest scarce resources into these facilities. Adoption the proposed policy would cause a substantial loss to these entities.

The rule is also inconsistent with the Commission's general policy of requiring newcomers to protect existing stations from harmful interference. See, e.g., Calvary Educational Broadcasting Network, Inc., FCC 92-238 (June 12, 1992) (requiring resolution of blanketing interference by new noncommercial educational FM station); 47 U.S.C. § 312(a)(2) (Commission has authority to revoke authorization for any condition which would justify refusal to grant license).

Furthermore, the Commission has previously emphasized that "there may be instances where the natural evolution of an ITFS [system] may reasonably require the addition of receive sites without changing the nature or the scope of the ITFS operation." Memorandum Opinion & Order on Reconsideration, 56 RR 2d 421, 424, ¶ 12 n.8 (1984). The Commission's "actual protection" proposal would eliminate such expansion by foreclosing interference protection for sites not in operation at the time of commencement of MDS radiation. Again, the Commission's proposal shifts policy without providing any explanation or justification.

And, just two years ago, the Commission unconditionally granted continuing interference protection to ITFS stations:

> If an interference analysis fails to identify an interference problem that later arises after the MDS station is in operation, the new licensee retains the obligation to correct such interference.

Wireless Cable Service, 5 FCC Rcd at 6413, ¶ 22. The Commission cannot rationally institute such a sudden change in its position on protection of ITFS for administrative convenience.

As the Commission recognized in 1983, not disrupting existing ITFS operations is in the public interest. Now without a reasoned

basis for changing its rules, the Commission has proposed to authorize disruption and hardship "in the public interest." Because of the burdens it will impose upon these stations, and because it does not serve the public interest, the Commission should not adopt interference "protection" rules proposed in the Notice. The Commission should, rather, retain the requirement that MDS applicants engineer their facilities to prevent harmful interference into co-channel and adjacent-channel ITFS licensees.

VI. WHILE CERTAIN PROPOSALS IN THE NOTICE APPEAR POTENTIALLY USEFUL, OTHERS REQUIRE FURTHER DEVELOPMENT.

IHETS, Northeastern and TVC offer the following comments on other aspects of the Commission's proposals in the Notice:

1. Location for Application Processing. The processing of ITFS and MDS applications should be united under one office. See Notice, ¶¶ 6-10. Because of its familiarity with the issues raised by television service in general, the Joint Commenters recommend that both services be handled by the Mass Media Bureau. Moreover, given current and proposed processing procedures and the evolving nature of the two services, MDS rules should appear in Part 74 with the ITFS rules.

2. Separation & Short-Spacing Tables. If the Commission adopts any kind of separation and short-spacing table for MDS, then the table should take into account the height above average terrain (HAAT) of receiving antennas. See Notice, ¶¶ 12-14. Without considering HAAT of receive antennas, the engineering assumptions in separation and short-spacing tables would invalidate the predicted interference protection.

3. Colocation of Adjacent Channel Stations. The rules for colocation of adjacent channel MDS/ITFS stations should include antenna elevation requirements to reduce interference into distant receive sites by the undesired signal from a higher antenna. Co-located ITFS and MDS transmit antennas should be mounted within 20 fee vertically of each other to reduce shadowing effects. See Notice, ¶ 12 & n.26.

4. MDS Settlement Groups. The proposal to disallow settlement agreements among MDS applicants is a good one. See Notice, ¶ 17. The abuse of Commission rules by speculative MDS filings has harmed the Commission, ITFS, and the public perception of radio frequency regulation in the United States. However, the Commission should be consistent. If it plans to make more stringent the MDS application process by eliminating settlement groups, then it should not relax the interference protection requirements imposed upon these same applicants, as proposed elsewhere in the Notice.

VII. CONCLUSION.

For the reasons outlined above, IHETS, Northeastern and TVC urge the Commission to retain the current interference protection policies for MDS applicants with respect to existing and previously applied-for co-channel and adjacent-channel ITFS stations. The proposals in the Notice would cripple the ability of ITFS licensees to provide much-needed instructional programming at their current levels of service and eliminate their ability to expand such programming. Indeed, adoption of certain proposals

would eventually destroy the viability of ITFS as an educational resource.

Long-standing policy and the public interest require the Commission to reject its proposals to use separation requirements for any ITFS licensees and to modify its current MDS interference protection policies for existing ITFS stations, and to retain current protections based upon an engineering standard.

Respectfully submitted,

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Dated: June 29, 1992

CERTIFICATE OF SERVICE

I hereby certify that, on this 29th day of June 1992, I have caused to be served a copy of the foregoing "Joint Comments on Notice of Proposed Rule Making" by hand delivery on the following:

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